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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FILIPPO BALESTRIERI,
SUNDAR RAJARAM,
JULIE WARD DREW,
and ENIS KAYIS

Appeal 2015-005775
Application 13/260,258
Technology Center 3600

Before ANTON W. FETTING, NINA L. MEDLOCK, and
AMEE A. SHAH, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Filippo Balestrieri, Sundar Rajaram, Julie Ward Drew, and Enis Kayis
(Appellants) seek review under 35 U.S.C. § 134 of a final rejection of

¹ Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed November 4, 2014) and Reply Brief ("Reply Br.," filed May 12, 2015), and the Examiner's Answer ("Ans.," mailed March 12, 2015), and Final Action ("Final Act.," mailed June 4, 2014).

claims 1–15, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellants invented a way of eliciting customer preferences from purchasing behavior surveys to consider survey data that include purchasing choices for particular products, along with customer demographic and behavioral data. Specification para. 6.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

1. A method, comprising:

[1] clustering survey respondents into two or more clusters

according to a data pattern identified in a dataset of responses to survey questions that includes

product purchasing decision response data,

and

respondent and product attribute response data;

[2] producing, by a computer, from data associated with a given cluster of the two or more clusters,

a model relating

purchasing decision response data

to

product attribute response data and respondent attribute response data;

[3] generating, by a computer using the model, projected purchasing decision response data for the cluster

by replacing a value relating to selected product attribute data with an alternative value;

[4] transforming the dataset by replacing purchasing decision response data with the projected purchasing decision response data;

and

[5] re-clustering survey respondents according to a data pattern identified in the transformed dataset.

The Examiner relies upon the following prior art:

Reynolds US 2008/0065471 A1 Mar. 13, 2008

Blume US 2007/0244741 A1 Oct. 18, 2007

Claims 1–15 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1–15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Reynolds and Blume.

ISSUES

The issues of statutory subject matter turn primarily on whether market research is abstract. The issues of obviousness turn primarily on whether the references describe replacing data in the original dataset.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to the Prior Art

Reynolds

01. Reynolds is directed to performing market research via interviewing and analysis of the resulting interview data on a communications network, and in particular, determining customer decision-making factors that can be used to increase customer loyalty and/or market share. Reynolds para. 2.

Blume

02. Blume is directed to analysis of consumer financial behavior, and more particularly to analyzing historical consumer financial behavior to accurately predict future spending behavior and likely responses to particular marketing efforts, in specifically identified data-driven industry segments. Blume para. 3.
03. Blume describes the membership function computing the membership value for each segment as the predicted dollar amount that the account holder will purchase in the segment given previous purchase history. The dollar amount is projected for a predicted time interval based on a predetermined past time interval. These two time intervals correspond to the time intervals of the input window and prediction windows used during training of the merchant segment predictive models. Sorting the list by the membership value identifies the merchant segments at which the consumer is predicted to spend the greatest amounts of money in

the future time interval, given their spending historically. Blume para. 303.

ANALYSIS

Claims 1–15 rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us? To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. [The Court] described step two of this analysis as a search for an “‘inventive concept’”—*i.e.*, an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Alice Corp., Pty. Ltd. v. CLS Bank Intl, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept.

Although the Court in *Alice* made a direct finding as to what the claims were directed to, we find that, in this case, the claims themselves and the

Specification provide enough information to inform one as to what they are directed to.

The preamble to claim 1 does not recite what it is directed to, but the steps in claim 1 result in clustering survey respondents. The Specification at paragraph 6 recites that the invention relates to eliciting customer preference from purchasing behavior surveys. Thus, all this evidence shows that claim 1 is directed to analyzing customer surveys, i.e., market research.

It follows from prior Supreme Court cases, and *Bilski* in particular, that the claims at issue here are directed to an abstract idea. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2356. Like the risk hedging in *Bilski*, the concept of market research is a fundamental sales practice long prevalent in our system of commerce. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2356. The use of market research is also a building block of market economies. Thus, market research, like hedging, is an “abstract idea” beyond the scope of § 101. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2356.

As in *Alice Corp. Pty. Ltd.*, we need not labor to delimit the precise contours of the “abstract ideas” category in this case. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2357. It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of risk hedging in *Bilski* and the concept of market research at issue here. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2357. Both are squarely within the realm of “abstract ideas” as the Court has used that term. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2357.

Further, claims involving data collection, analysis, and display are directed to an abstract idea. *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (holding that “collecting information, analyzing it, and displaying certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent ineligible concept”); *see also In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016). Claim 1, unlike the claims found non-abstract in prior cases, uses generic computer technology to perform data collection, analysis, and aggregation and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims not abstract because they “focused on a specific asserted improvement in computer animation”). As such, claim 1 is directed to the abstract idea of receiving, analyzing, and aggregating data.

The remaining claims merely describe labels attached to data and abstract analytic techniques. We conclude that the claims at issue are directed to a patent-ineligible concept.

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a

computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implement[t]” an abstract idea “on ... a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional feature[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

Alice Corp. Pty. Ltd., 134 S. Ct. at 2358 (alterations in original) (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to cluster, produce, generate, replace, and transform data amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. In short, each step does no more than require a generic computer to perform generic computer functions.

Considered as an ordered combination, the computer components of Appellants’ method add nothing that is not already present when the steps are considered separately. Viewed as a whole, Appellants’ method claims

simply recite the concept of market research as performed by a generic computer. To be sure, the claims recite doing so by advising one to create a model from aggregated data and use that model to create further research data according to various criteria. But this is no more than abstract conceptual advice on the parameters for such research and the generic computer processes necessary to process those parameters, and do not recite any particular implementation.

The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. The 13 pages of specification spell out different generic equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of creating research data under different criteria and parameters. They do not describe any particular improvement in the manner a computer functions. Instead, the claims at issue amount to nothing significantly more than an instruction to apply the abstract idea of market research using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2360.

As to the structural claims, they

are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long “warn[ed] ... against” interpreting § 101 “in

ways that make patent eligibility ‘depend simply on the draftsman’s art.’”

Alice Corp. Pty. Ltd., 134 S. Ct. at 2360 (alterations in original) (quoting *Mayo*, 132 S. Ct. at 1294).

We are not persuaded by Appellants’ argument that the claims are novel and non-obvious. Reply Br. 8–9. Eligibility of subject matter is a different ground of rejection, and novelty per se does not transform an abstract idea into a concrete idea.

We are not persuaded by Appellants’ argument that the claims are similar to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (2014). Reply Br. 9. Appellants contend that the claims recite

specific features that are not well-understood, routine and conventional in the field, and add unconventional features that confine the claims to a particular useful application and are meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment.

Reply Br. 10, 11. As we find *supra*, the independent claims do no more than cluster, replace, and create data. Appellants’ arguments are conclusory and do not provide any evidence that these are not routine data processing operations.

Claims 1–15 rejected under 35 U.S.C. § 103(a) as unpatentable over Reynolds and Blume

We are persuaded by Appellants’ argument that Blume fails to disclose limitation [4] of transforming the dataset by replacing purchasing decision response data with the projected purchasing decision response data. App.

Br. 10–11. The Examiner finds that Blume’s paragraph 303 describes projected purchasing decision data. Ans. 6. We agree so far as this goes, but the claim also recites replacing original response data with this data in the original response dataset. The Examiner presents no findings as to this and we are unable to discern any such disclosure.

CONCLUSIONS OF LAW

The rejection of claims 1–15 under 35 U.S.C. § 101 as directed to non-statutory subject matter is proper.

The rejection of claims 1–15 under 35 U.S.C. § 103(a) as unpatentable over Reynolds and Blume is improper.

DECISION

The rejection of claims 1–15 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED